

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventer : **Kelly, D.P.**
Application No. : **10/540,597**
Filed : **January 18, 2006**
For : **DIGITAL BROADCAST METHOD AND SYSTEM
FOR SUPPORTING DVD RECORDING AND RELEVANT RECEIVING AND
RECORDING METHOD AND DEVICE**

APPEAL BRIEF

On Appeal from Group Art Unit 2425

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Date: December 1, 2009

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I. REAL PARTY IN INTEREST

Koninklijke Philips Electronics N.V. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

As filed, this case included claims 1-22. Claims 1-2, 6-10 and 12-22 remain pending, stand rejected, and form the basis of this appeal. Claims 3-5 and 11 have been cancelled without prejudice.

IV. STATUS OF AMENDMENTS

This appeal is in response to an Office Action, dated March 10, 2009 and a Final Office Action, dated September 21, 2009. Claims 1, 2, 8-10, 15-18 and 20 stand rejected under 35 USC 103(a) as being unpatentable over Maeda et al. (U.S. Patent 6,556,546) B1 in view of Mao et al. (U.S. Patent No. 6,886,178 B1), and claims 6, 7, 13 and 14 under 35 U.S.C. 103(a) over Maeda in view of Mao and in further view of Rotem et al. (U.S. Patent No. 7,043,484). On June 10, 2009, an amendment in response to the Office Action dated March 10, 2009, was entered by the Examiner. A Notice of Appeal was filed on October 7, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention, particularly, independent claim 1 discloses a digital broadcast method for supporting DVD recording, see page 2, lines 13-14, comprising providing a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs, packing said video elementary stream, said audio elementary stream and said navigation data stream into a transport stream, see page 3, lines 5, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control and broadcasting said transport stream, see page 7, lines 8-20.

Independent claim 10 discloses a method for receiving and recording DVD digital broadcast, see page 3, lines 11-12, comprising receiving a broadcast transport stream, acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from the transport stream, synthesizing said video elementary stream, audio elementary stream and navigation data stream into a DVD program stream, see page 3, lines 13-20, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control, and recording the DVD program stream onto a recording medium in a DVD format, see page 7, lines 8-20..

Independent claim 15 discloses a digital broadcast system for supporting DVD recording, see page 4, lines 1-2, comprising program source means, for generating a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs, see page 4, lines 3-5, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control, see page 7, lines 8-

20, and digital front end means, packing said video elementary stream, said audio elementary stream and said navigation data stream from said program source means into a transport stream and outputting the transport stream to a broadcast network for broadcasting see page 4, lines 6-10.

Independent claim 18 discloses a device for receiving and recording DVD digital broadcast, see page 4, lines 16-17, comprising receiving means, receiving a broadcast transport stream, acquiring means, acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from said transport stream, see page 4, lines 18-21, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control, synthesizing means, synthesizing said video elementary stream, see page 7, lines 8-20, said audio elementary stream and said navigation data stream into a DVD program stream, and DVD producing and recording means, recording the DVD program stream onto a recording medium in a DVD format, see page 4, line 21 - page 5, line 2.

Claims 2, 6-7 and 21 depend from independent claim 1 and recite further aspects of the invention claimed.

Claims 9-10, 13-14 and 22 untimely depend from independent claim 8 and recite further aspects of the invention claimed.

Claims 15-16 untimely depend from independent claim 8 and recite further aspects of the invention claimed.

Claims 19-20 untimely depend from independent claim 8 and recite further aspects of the invention claimed.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issue in the present matter is whether:

(1) Rejection of: Claims 1, 2, 8-10, 15-18 and 20 under 35 USC 103(a) as being unpatentable over Maeda et al. (U.S. Patent 6,556,546) B1 in view of Mao et al. (U.S. Patent No. 6,886,178 B1), and claims 6, 7, 13 and 14 under 35 U.S.C. 103(a) over Maeda in view of Mao and in further view of Rotem et al. (U.S. Patent No. 7,043,484) is in error.

VII. ARGUMENT

(1) Rejection of claims 1-2, 6-10 and 12-22

Appellants respectfully submit that the rejection of claims 1, 2, 8-10, 15-18 and 20 under 35 USC 103(a) as being unpatentable over Maeda et al. (U.S. Patent 6,556,546) B1 in view of Mao et al. (U.S. Patent No. 6,886,178 B1), and claims 6, 7, 13 and 14 under 35 U.S.C. 103(a) over Maeda in view of Mao and in further view of Rotem et al. (U.S. Patent No. 7,043,484) is in error.

It is respectfully submitted that in order to establish a *prima facie* case of obviousness, three basic criteria must be met;

1. there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings;
 2. there must be a reasonable expectation of success; and
 3. the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.
- In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)

In *KSR Int'l. Co. v. Teleflex, Inc.*, the Supreme Court noted that the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit, and that it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed:

"Often, it will be necessary ... to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit**." KSR, 82 USPQ2d 1385 at 1396 (emphasis added).

Further, MPEP 2143 states:

"If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."

Independent claim 1 recites the limitations of "...wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus *wherein the navigation data also includes data for reproduction control...*" Independent claims 8, 15 and 18 recite similar limitations.

The Office Action indicates that Maeda discloses in col.2, lines 40-50 and the abstract the above limitations. Appellants respectfully disagree. In particular, the Office Action indicates that Maeda discloses "that the transmitting device transmits digital audio/video data along with management information data (navigation data) for playing back digital audio/video data... [and] that the management information is used in playback device so the playback device can make use of various playback functions, such as playback of audio/video, a change of playback procedure (forward/rewind/pause) and selection of playback information (menu)."

Assuming that all of the above from the Office Action is true, it still does not teach the above limitation of “*wherein the navigation data also includes data for reproduction control*” Appellants note that the “at least one of” refers to “in-stream data and out-stream data, data for searching and data for generating menus” and the data for reproduction is required by the claim.

Since Maeda and Mao, alone or in combination, fail to disclose each and every element claimed, Appellant submits that the reason for the Examiner's rejection of claims 1, 8, 15 and 18 has been overcome and can no longer be sustained. Appellant respectfully requests reconsideration, withdrawal of the rejection and allowance of claims 1, 8, 15 and 18.

In the Office Action, claims 6, 7, 13 and 14 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Maeda in view of Mao and in further view of Rotem et al. (U.S. Patent No. 7,043,484). Claim 19 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Maeda in view of Mao and in further view of Na (U.S. Patent No. 6,504,996).

With regard to the dependent claims 2, 6-7, 9, 13, 14, and 16-20 these claims ultimately depend from one of the independent claims, which have been shown to be allowable in view of the cited references. Accordingly, claims 2, 6-7, 9, 13, 14, and 16-20 are also allowable by virtue of their dependence from an allowable base claim.

VIII. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referred to reference fails to anticipate the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Respectfully submitted,

Dan Piotrowski
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A handwritten signature in black ink, appearing to read "Thomas J. Onka", written over a horizontal line.

Date: December 1, 2009

By: Thomas J. Onka
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IX. CLAIMS APPENDIX

1. A digital broadcast method for supporting DVD recording, comprising:

providing a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs;

packing said video elementary stream, said audio elementary stream and said navigation data stream into a transport stream, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control; and

broadcasting said transport stream.

2. The method of claim 1, wherein, said packing is carried out according to a digital broadcast standard, and said navigation data stream is loaded into the transport stream as a private stream of the digital broadcast standard.

3. Cancelled.

4. Cancelled

5. Cancelled

6. The method of claim 1, wherein said in-stream data includes data for connecting networks.

7. The method of claim 1, wherein the in-stream data includes video and/or audio data selected by a broadcaster.

8. A method for receiving and recording DVD digital broadcast, comprising:

receiving a broadcast transport stream;

acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from the transport stream;

synthesizing said video elementary stream, audio elementary stream and navigation data stream into a DVD program stream, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control; and

recording the DVD program stream onto a recording medium in a DVD format.

9. The method of claim 8, wherein the transport stream complies with a digital broadcast standard, the navigation data stream is loaded into the transport stream as a private data stream of the digital broadcast standard.

10. The method of claim 8, wherein said synthesizing includes:

separating the navigation data into the in-stream data and the out-stream data;

synthesizing the in-stream data, the video elementary stream and the audio elementary stream into the DVD program stream and caching the out-stream data;

and said recording includes:

recording the out-stream data onto said recording medium.

11. Cancelled.

12. Cancelled.

13. The method of claim 10, wherein said in-stream data includes data for connecting networks.

14. The method of claim 10, wherein said in-stream data includes video and/or audio data selected by a broadcaster.

15. A digital broadcast system for supporting DVD recording, comprising:

program source means, for generating a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control; and

digital front end means, packing said video elementary stream, said audio elementary stream and said navigation data stream from said program source means into a transport stream and outputting the transport stream to a broadcast network for broadcasting.

16. The system of claim 15, wherein said digital front end means packs said video elementary stream, said audio elementary stream and said navigation data stream into said transport stream according to a digital broadcast standard, wherein said navigation data stream is loaded into said transport stream as a private stream of the digital broadcast standard.

17. The system of claim 15, further including a plurality of receiving means, wherein at least one of them has a DVD recording function.

18. A device for receiving and recording DVD digital broadcast, comprising:

receiving means, receiving a broadcast transport stream;

acquiring means, acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from said transport stream, wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching and data for generating menus wherein the navigation data also includes data for reproduction control;

synthesizing means, synthesizing said video elementary stream, said audio elementary stream and said navigation data stream into a DVD program stream; and

DVD producing and recording means, recording the DVD program stream onto a recording medium in a DVD format.

19. The device of claim 18, wherein said transport stream complies with an existing digital broadcast standard, the navigation data stream is loaded into said transport stream as a private data stream of the digital broadcast standard and said acquiring means includes:

a demultiplexer, for demultiplexing said transport stream and acquiring video data, audio data and navigation data of a program;

video decoder, for decoding said video data and generating the video elementary stream;

audio decoder, for decoding said audio data and generating the audio elementary stream;

and

navigation data decoder, for decoding the navigation data and generating the navigation data stream.

20. The device of claim 18, wherein the device further includes:

separating means, receiving the navigation data stream generated by the navigation data decoder, separating the navigation data stream into the in-stream data and out-stream data and outputting the in-stream data to the synthesizing means and the out-stream data to a buffer;

synthesizing the in-stream data from the separating means, video elementary stream from the video decoder and the audio elementary stream from the audio decoder into the DVD program stream by the synthesizing means; and

recording the synthesized DVD program stream and said out-stream data onto the recording medium in the DVD format by the DVD producing and recording means.

21 The method of claim 1, wherein the navigation data includes hyperlink data to enable users to visit related websites or obtain viewing authorization information

22 The method of claim 8, wherein the navigation data includes hyperlink data to enable users to visit related websites or obtain viewing authorization information

X. EVIDENCE APPENDIX

No evidence has been submitted.

XI. RELATED PROCEEDINGS APPENDIX

There are no related proceedings.